



**Delta Electronics India Pvt Ltd**

Effective Date	13-06-2023
Page No.	Page 1 of 11
Document No.	CDD Integration
Authored by	Ashfin.R

**CDD Integration Summary**

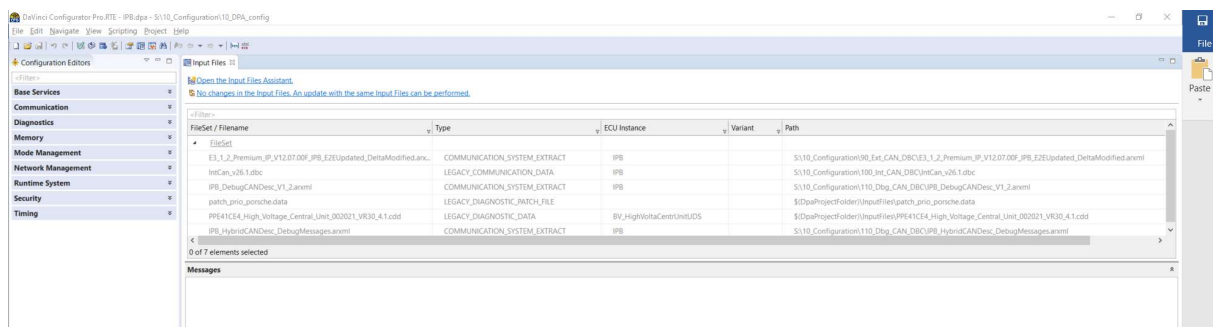
## ***CDD Integration Summary***



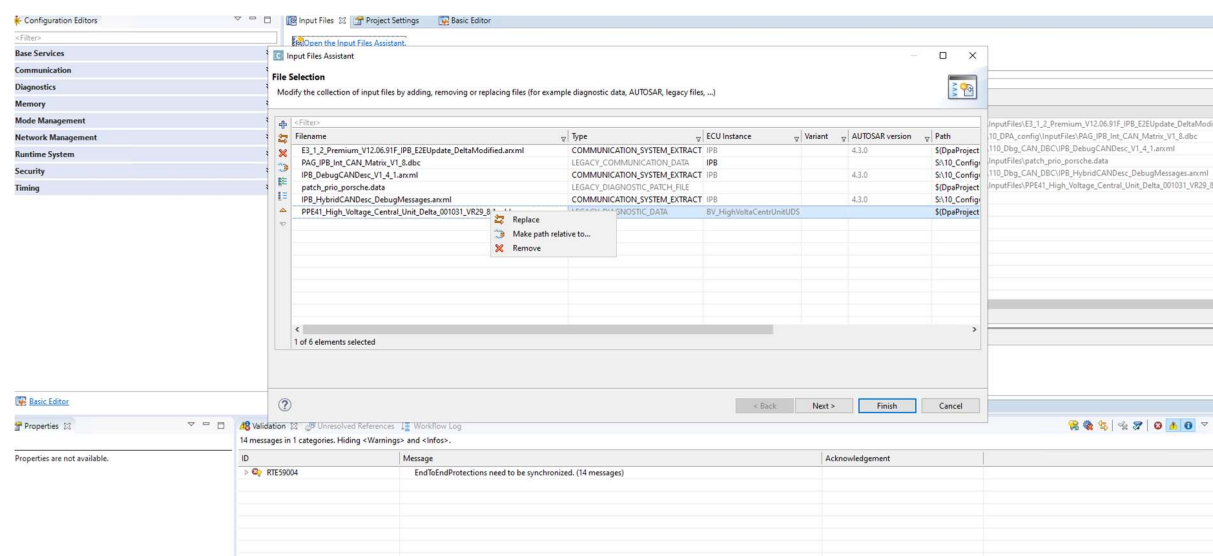
CDD Integration Summary

## Summarized Steps for CDD Integration

1. Copy the new CDD file to S:\10\_Configuration\10\_DPA\_config\InputFiles
2. Open configurator, click Projects → Input Files. In the window, click “open the Input Files Assistant”



3. Replace the old CDD with the new one.



4. Select the proper variant, usually the other one than BasisVariante. Also enable “Import DIDs and RIDs as single signal” under the Advanced options.



CDD Integration Summary

Input Files Assistant

Diagnostic Data

Select an ODX or CDD file here.  
Note: AUTOSAR diagnostic system extract files (ARXML) can be selected in the File selection.

Diagnostic Description

Diagnostic Description File: D:\NoBackup\Dev\1001\_Common\1\10\_Configuration\10\_DPA\_config\InputFiles\PE41\_High\_Voltage\_Central\_Unit\_Delta\_001031\_VR29\_8.1.cdd

ECU: BV\_HighVoltageCentralUnitUDS

Variant: BasisVariante

State Description: BasisVariante

If an ODX 2.0.1 Diagnostic Description File is used, an additional State Description will be required.

State Description:

Create new State Description Template: [Create new State Description Template...](#)

Update the content of the State Description: [Synchronize State Description...](#)

Advanced Options

Import DIDs and RIDs as single signal for DCM (backward compatibility): ☒

Generic Legacy Diagnostic Import: ☐

Diagnostic Description Patch File

The patch file contains modifications to be applied before processing the diagnostic description. The file is provided by Vector if required. Do not change the content.

Diagnostic Description Patch File: S:\DpaProjectFolder\InputFiles\patch\_prio\_porsche.data

< Back Next > Finish Cancel

14 messages in 1 categories. Hiding <Warnings> and <Infos>.

ID	Message	Acknowledgement
> RTE59004	EndToEndProtections need to be synchronized. (14 messages)	

5. Click next. Nothing to be done in this step.

Input Files Assistant

Overview Configuration

Here all your configurations are listed.

<Filter>

FileSet / Filename	Type	ECU Instance	Variant	Path
FileSet				
E3_1_2_Premium_V12.06.91F_IPB_E2EUUpdate_De...	COMMUNICATION_SYSTEM_EXTRACT	IPB		S:\DpaProjectFolder\InputFiles\E3_1_2_Premium_V1...
PAG_IPB_Int_CAN_Matrix_V1_8.dbc	LEGACY_COMMUNICATION_DATA	IPB		S:\10_Configuration\10_DPA_config\InputFiles\PAG...
IPB_DebugCANDesc_V1_4_1.xml	COMMUNICATION_SYSTEM_EXTRACT	IPB		S:\10_Configuration\110_Dbg_CAN_DBC\IPB_Debug...
patch_prio_porsche.data	LEGACY_DIAGNOSTIC_PATCH_FILE			S:\DpaProjectFolder\InputFiles\patch_prio_porsche...
IPB_HybridCANDesc_DebugMessages.xml	COMMUNICATION_SYSTEM_EXTRACT	IPB		S:\10_Configuration\110_Dbg_CAN_DBC\IPB_Hybrid...

0 of 7 elements selected

Enable UUID Usage

The project update will identify objects based on their UUIDs. If no UUID is defined the AUTOSAR path is used by default. To force the update using AUTOSAR path identification only, disable the UUID usage.

☐ Enable UUID usage in System Description Files

☐ Enable UUID usage in Standard Configuration Files

Enable Selective Update

The project can be updated selective. In this case, the software components, the legacy diagnostic data and each autosar path channel can be selected for update on the next page.

☐ Enable Selective Update

< Back Next > Finish Cancel

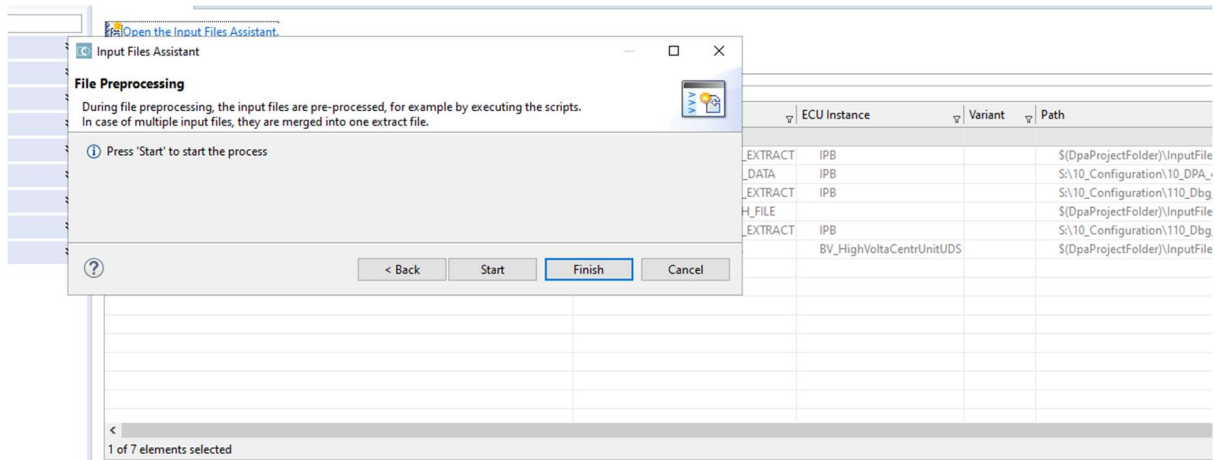
14 messages in 1 categories. Hiding <Warnings> and <Infos>.

ID	Message	Acknowledgement
> RTE59004	EndToEndProtections need to be synchronized. (14 messages)	

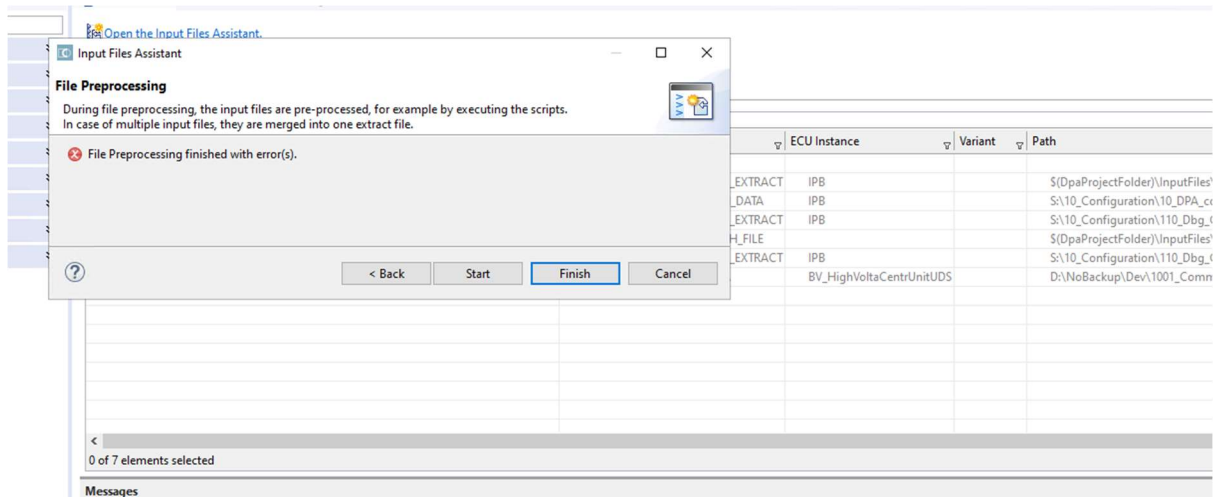
6. Click Next and select start in the next window.



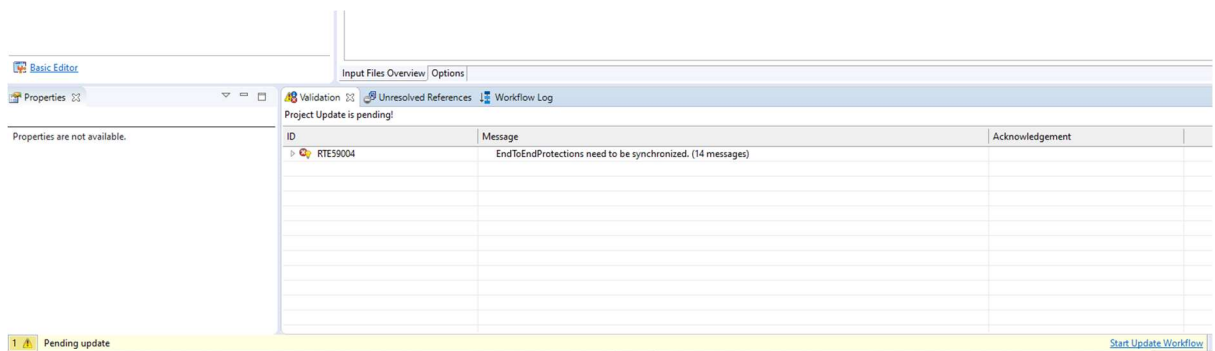
CDD Integration Summary



7. This will process for few minutes and shows the message “Finished with errors”. Click on Finish.



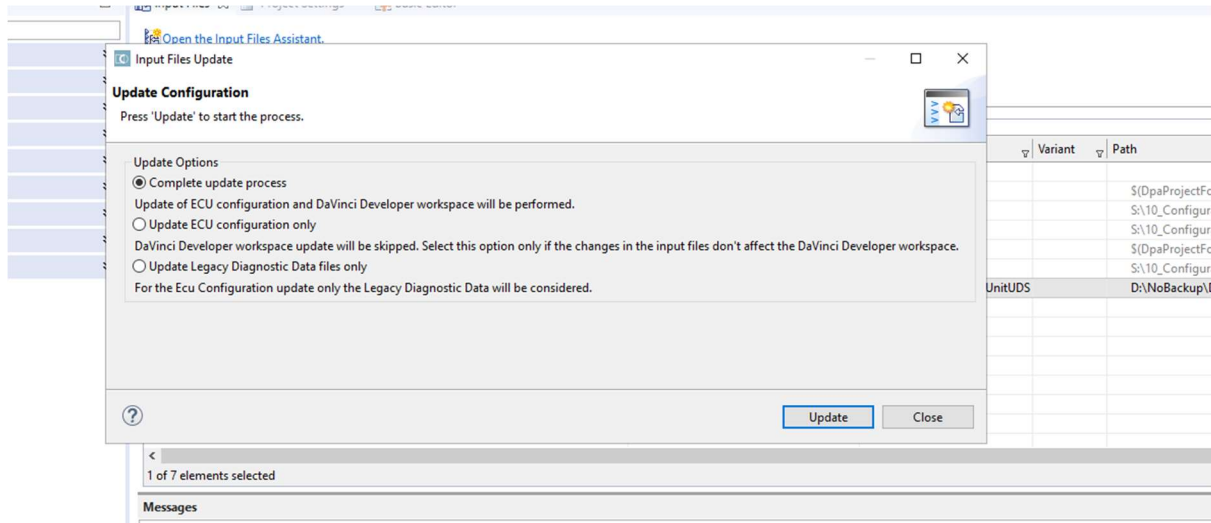
8. Now click on “Start Update Workflow” at the bottom.



9. Select “Complete Update Process” and click on update.



CDD Integration Summary



10. This will take nearly 10 minutes and will finish on its own. Afterwards, go to the validation tab at the lower half and select “only show errors, not warnings/suggestions” (at top right of window).

11. The list of all validation errors faced so far and their resolutions are given below:

Validation Errors in Davinci Configurator					
Sl. No.	ID	Message	Description (Example Case)	Number of Errors	Resolution
1	Cfg 00 02 4	Missing reference target	The target of reference DemFreezeFrameClassRef(value=FreezeFrameClass_FreezeFrame_66de3a66) is missing.	4	The error can be resolved either by removing the unwanted DTC (as per the CDD) or by selecting the appropriate DemFreezeFramClass Ref.
2	Cfg 00 02 4	Missing reference target	The target of reference SokFmDemSignatureCreationFailedRef(value=DTC_0x000017) is missing.	1	The missing DTC containers need to be added under the DemDTCClass and DemEventparameters.

**CDD Integration Summary**

3	RT E5 10 17	Port prototype inconsisten t	ComponentPort 'S_DataServices_Data_DiagnServi_TABROW_NeuMeasu_Read_4' is not valid: - Unresolved port interface reference '/MICROSAR/Dcm_sw/Interfaces/DataServices_Data_DiagnServi_TABROW_NeuMeasu_Read_4' for PPort prototype 'S_DataServices_Data_DiagnServi_TABROW_NeuMeasu_Read_4' of component type 'appldiag'.	143	These port interfaces are not required as per the CDD and hence they (along with the runnables) have to be removed in the DaVinci Developer. This resolves the issue.
4	RT E5 30 23	Data Mapping inconsisten t	Signal '/Signal/SG_KS_HVZB_Challenge_M' is mapped to communication elements 'KS_Slave.SlaveComChallengeM.challengeM' and 'ECU Composition.RP_IF_SG_KS_HVZB_Challenge_M_XIX_I PB.DE_SG_KS_HVZB_Challenge_M', but their data types '/KS_GEN3/DataTypes/DT_Ks_ChallengeResponseMessage' and '/RecDataType/AT_SG_KS_HVZB_Challenge_M' are incompatible.	30	The resolution is done using the 'Data Mapping' tool in the DaVinci Developer (Signal View Mode). Unmap the signal groups with multiple mapping and remap them using the correct DEP/Trigger. In some cases of wrong signal mapping, they need to be corrected as per the old DPA file.
5	RT E5 40 00	Connector prototype inconsisten t	Connector 'appldiag_S_DataServices_Data_DiagnServi_TABROW_HistoDuratTempeSacPhase3Read_3_Dcm_DataServices_Data_DiagnServi_TABROW_Histo' is not valid: - Unresolved port prototype reference '/MICROSAR/Dcm_sw/ComponentTypes/Dcm/DataServices_Data_DiagnServi_TABROW_HistoDuratTempeSacPhase3Read_3' in Assembly connector 'appldiag_S_DataServices_Data_DiagnServi_TABROW_HistoDuratTempeSacPhase3Read_3_Dcm_DataSe Remove inconsistent connector appldiag_S_DataServices_Data_DiagnServi_TABROW_HistoDuratTempeSacPhase3Read_3_Dcm_DataServices_Data_DiagnServi_TABROW_Histo.	145	Should be resolved using the solution provided by the DaVinci Configurator. (Removing inconsistent connector)







CDD Integration Summary

```
\\20_Make\bin\COM_IPB_PPE.map - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window 2
COM_IPB_PPE.map
33937 0x8018b2e2 0x8018b325 68 g Dem_Cfg_MemoryBlockId
33938 0x8018b2c0 0x8018b2e1 34 g Dem_Cfg_MemoryBlockIdToMemoryEntryId
33939 0x70016f8e 0x70016f8f 2 g Dem_Cfg_MemoryCurrentCount
33940 0x8018b238 0x8018b2bf 136 g Dem_Cfg_MemoryDataPtr
33941 0x8018b1f4 0x8018b237 68 g Dem_Cfg_MemoryDataSize
33942 0x8018b178 0x8018b1f3 124 g Dem_Cfg_MemoryEntry
33943 0x8018b0a8 0x8018b177 208 g Dem_Cfg_MemoryEntryInit
33944 0x8018b090 0x8018b0a7 24 g Dem_Cfg_MemoryInfoTable
33945 0x70016f6c 0x70016f8d 34 g Dem_Cfg_MemoryStatus
33946 0x70016f5a 0x70016f6b 18 g Dem_Cfg_PermanentData
33947 0x70016f3c 0x70016f59 30 g Dem_Cfg_PrimaryChronology
33948 0x70016e6c 0x70016f3b 208 g Dem_Cfg_PrimaryEntry_0
33949 0x70016d9c 0x70016e6b 208 g Dem_Cfg_PrimaryEntry_1
33950 0x70016ccc 0x70016d9b 208 g Dem_Cfg_PrimaryEntry_10
33951 0x70016bfc 0x70016ccb 208 g Dem_Cfg_PrimaryEntry_11
33952 0x70016b2c 0x70016bfb 208 g Dem_Cfg_PrimaryEntry_12
33953 0x70016a5c 0x70016b2b 208 g Dem_Cfg_PrimaryEntry_13
33954 0x7001698c 0x70016a5b 208 g Dem_Cfg_PrimaryEntry_14
33955 0x700168bc 0x7001698b 208 g Dem_Cfg_PrimaryEntry_15
33956 0x700167ec 0x700168bb 208 g Dem_Cfg_PrimaryEntry_16
33957 0x7001671c 0x700167eb 208 g Dem_Cfg_PrimaryEntry_17
33958 0x7001664c 0x7001671b 208 g Dem_Cfg_PrimaryEntry_18
33959 0x7001657c 0x7001664b 208 g Dem_Cfg_PrimaryEntry_19
33960 0x700164ac 0x7001657b 208 g Dem_Cfg_PrimaryEntry_2
33961 0x700163dc 0x700164ab 208 g Dem_Cfg_PrimaryEntry_20
33962 0x7001630c 0x700163db 208 g Dem_Cfg_PrimaryEntry_21
33963 0x7001623c 0x7001630b 208 g Dem_Cfg_PrimaryEntry_22
33964 0x7001616c 0x7001623b 208 g Dem_Cfg_PrimaryEntry_23
33965 0x7001609c 0x7001616b 208 g Dem_Cfg_PrimaryEntry_24
33966 0x70015fcc 0x7001609b 208 g Dem_Cfg_PrimaryEntry_25
33967 0x70015efc 0x70015fcb 208 g Dem_Cfg_PrimaryEntry_26
33968 0x70015e2c 0x70015efb 208 g Dem_Cfg_PrimaryEntry_27
33969 0x70015d5c 0x70015e2b 208 g Dem_Cfg_PrimaryEntry_28
33970 0x70015c8c 0x70015d5b 208 g Dem_Cfg_PrimaryEntry_29
33971 0x70015bbc 0x70015c8b 208 g Dem_Cfg_PrimaryEntry_3
33972 0x70015aec 0x70015bbb 208 g Dem_Cfg_PrimaryEntry_4
33973 0x70015a1c 0x70015aeb 208 g Dem_Cfg_PrimaryEntry_5
33974 0x7001594c 0x70015a1b 208 g Dem_Cfg_PrimaryEntry_6
33975 0x7001587c 0x7001594b 208 g Dem_Cfg_PrimaryEntry_7
33976 0x700157ac 0x7001587b 208 g Dem_Cfg_PrimaryEntry_8
33977 0x700156dc 0x700157ab 208 g Dem_Cfg_PrimaryEntry_9
33978 0x700155e0 0x700156db 252 g Dem_Cfg_ReadoutBuffer
33979 0x700155a0 0x700155df 64 g Dem_Cfg_ReportedEventsOfFilter
```

The block information and their naming in the map file are given below, the grey blocks are not required to be checked.

Block	Size	ppe.map	naming in ppe.map
DemStatusDataBlock	1610	826	Dem_Cfg_StatusData
DemObdFreezeFrameDataBlock	600	600	Dem_Cfg_FreezeFrameData
NVM_appldiag_Dsd_LSGParam	525		
NVM_appldiag_Dsd_MOBGParam	525		
SfdA_CalcConfData	514		
NvM_FBL_DataBlock2	314	314	
NvM_FBL_DataBlock1	300		
NvM_calib_COM_Param	244		
DemPrimaryDataBlock0	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock1	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock2	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock3	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock4	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock5	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock6	208	40	Dem_Cfg_PrimaryEntry_#



**CDD Integration Summary**

DemPrimaryDataBlock7	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock8	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock9	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock10	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock11	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock12	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock13	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock14	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock15	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock16	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock17	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock18	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock19	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock20	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock21	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock22	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock23	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock24	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock25	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock26	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock27	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock28	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock29	208	40	Dem_Cfg_PrimaryEntry_#
Nvm_Lvdc_Param	200	200	Coding_Lvdc_parameter_block_st
Nvm_calib_LVDC_Param	150	150	Coding_EOL_LVDC_calib_block_st
Nvm_calib_HVDC_Param	150	150	Coding_EOL_HVDC_calib_block_st
Nvm_calib_AC_Param	150	150	Coding_EOL_AC_calib_block_st
NvM_ident_Param	80	80	Coding_ident_parameter_block_st
NvM_Obddiag	70	72	Coding_obddiag_parameter_block_st
NvM_history_Param	60	60	Coding_history_parameter_block_st
NvM_heater_Param	30	30	Coding_heater_parameter_block_st
NvM_ecuext_Param	30	30	Coding_ecuext_parameter_block_st
NvM_cm_Param	30	32	Coding_cm_parameter_block_st
NvM_comwrap_asil_Param	30	30	Coding_comwrap_asil_parameter_block_st
NvM_appldiag_Param	30	30	Coding_appldiag_parameter_block_st
SfdA_PersistentData	30		SfdA_PersistentDataBuffer
SfdA_LogData	19		
DemObdPermanentDataBlock	18	18	Dem_Cfg_PermanentData
NvM_KS_Slave	16		
NvM_CddNpmGen2	15		
DemAdminDataBlock	14	14	Dem_Cfg_AdminData
NvM0x0250	12		
NvM_VKMS_Block	2		
NvMConfigBlock	2		



CDD Integration Summary

16. After the above change. Do the validation, generation and compilation again.

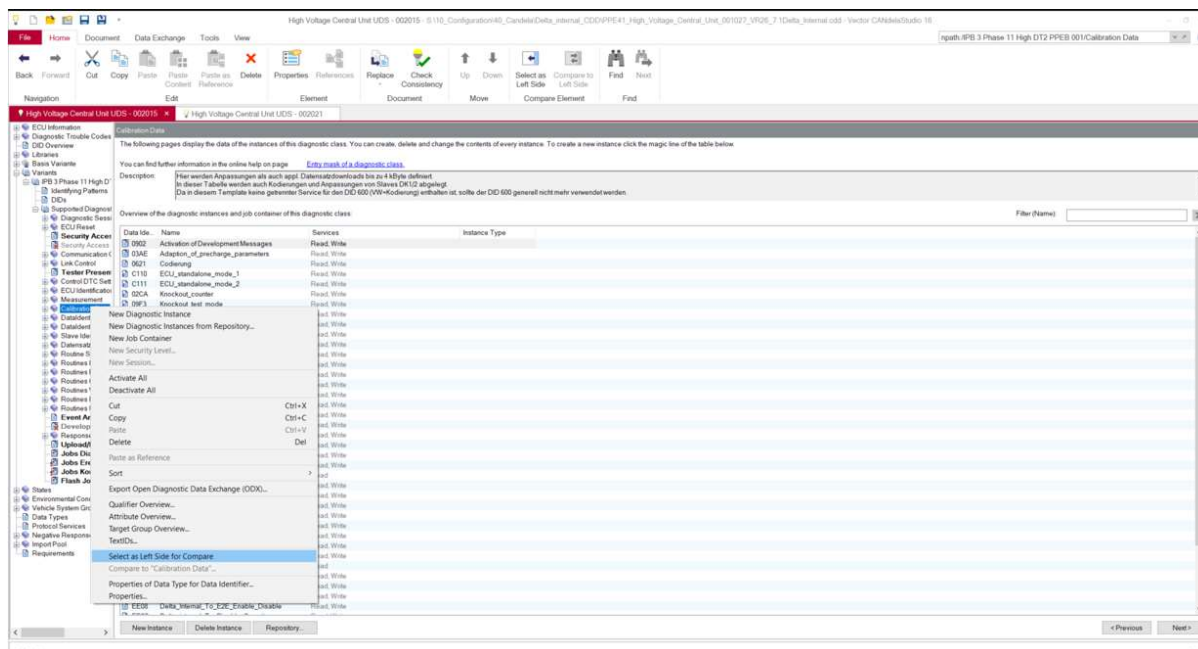
17. In the appldiag.c code, the ECU Identification DIDs F19E and F1A2 data need to modified as per the new CDD name. (For example F1A2 the version data is 002 and version minor is 021 for PPE41CE4\_High\_Voltage\_Central\_Unit\_002021\_VR30\_4.1.cdd)

```
1764
1765 #define ASM_ODX_FILE_VERSION_DATA (0x303032)
1766 #define ASM_ODX_FILE_VERSION_MINOR (0x303231)
1767
1768 /* Values for RoutineStatus */
```

18. Replace the old CDD file with the new one at S:\10\_Configuration\40\_Candela

19. The Delta Internal CDD need to created based on the new CDD file. Replace the old delta internal CDD file with the new one at S:\10\_Configuration\40\_Candela\Delta\_internal\_CDD.

a. To update the new CDD as delta internal CDD, open both new CDD and the old delta internal cdd. Now go to the calibration DIDs of old Delta internal CDD, right click and select “Select as left side to compare”. Go to same for new CDD , right click and select compare.



b. A new window will open, then select to see “Show Objects only existing on the left side”. This will highlight the Delta Internal DIDs that need to copied to new CDD.

c. Go to transfer mode, select all the DIDs and select transfer. Now all the delta internal DIDs should be present in the new CDD.

d. Save the CDD file after updating the revision history and then rename the CDD as Delta\_Internal CDD.

*This document is the property of Delta Electronics India Pvt Ltd., and cannot be used by, or given to, other parties without prior authorisation*



## Delta Electronics India Pvt Ltd

Effective Date	13-06-2023
Page No.	Page 11 of 11
Document No.	CDD Integration
Authored by	Ashfin.R

### CDD Integration Summary

20. Test the build thoroughly using Canoe – WinIdea Setup and make sure all the functionalities like DID services and DTC storage are working properly. Also test the delta internal DIDs.

21. Create a ticket for FEE generation if the NVM block sizes had changed with respect to the map file. Reference:  
<https://jiraext.deltaww.com/browse/PIPB-5489>